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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,136	04/26/2001	Sadakatsu Kumoi	9558-001-27	6550

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Supervisor, Patent Prosecution Services
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Washington, DC 20036-2412

EXAMINER

NGUYEN, NGOC YEN M

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 06/24/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/842,136

Applicant(s)

KUMOI ET AL.

Examiner

Ngoc-Yen M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10, 12 are, drawn to a process for recovering HCl from chlorine based waste, classified in class 423, subclass 488.
- II. Claim 11 is, drawn to a method of using the hydrogen chloride, classified in class 570, subclass 226.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, it should be noted that the method of producing vinyl chloride monomer can be practice with hydrogen chloride produced by a different method, such as by reacting hydrogen with chlorine.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Perry Van Over on May 8, 2003 a provisional election was made with traverse to prosecute the invention of I, claims 1-10, 12. Affirmation of this election must be made by applicant in replying to this Office action. Claim 11 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, there is no clear antecedent basis for "the obtained purified chlorine gas", it should be noted that in claim 1, "a purified hydrogen chloride gas" is obtained not "chlorine".

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 619 268.

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EP '268 discloses a process for the production of hydrogen chloride from chlorous waste material (I), comprising the following steps:

- a. combustion of (I);
- b. scrubbing the flue gas to produce crude acid (II);
- c. treating the waste liquid partly accruing in the scrubber to produce residual waste with a high solid content and a solution (III) containing chloride;
- d. recycling (III) to step a.
- e. distilling (II) with an entrainer (IV) to produce HCl-rich gas (V) and remove impurities which are soluble in (IV);
- f. optionally separating HF from (V);
- g. drying (V) by adsorption and regenerating the adsorbent (VI), giving an aqueous concentrate which is passed to waste liquor treatment; and
- h. working (IV) by evaporation of water and precipitation and filtration of impurities, the aqueous condensate being recycled to gas scrubber, while the filtered solids are passed to waste liquor treatment for recovery of chloride (note English abstract).

EP '268 further discloses that hydrazine can be added to the crude acid to remove the elemental chlorine before the distilling step (note column 6, lines 39-47).

EP '268 also teaches that ammonium bisulfite or ammonium sulfite can be used (note column 3, lines 14-21).

For claim 2, the examiner takes Official Notice that the use of an automatic control to measure and to control any process condition is known and conventional in the art.

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The order of adding the reducing agent to the acid gas or solution is not seen as a patentable difference, as long as the reducing agent is capable of removing the elemental chlorine from the crude acid solution.

For claim 10, the step of liquefying the hydrogen chloride gas is known and conventional in the art, especially when such hydrogen chloride gas needs to be transported or stored because it would reduce the volume of the gas.

The difference is EP '268 does not disclose that oxidation-reduction potential of the crude acid, after adding the hydrazine.

However, as disclosed in the instant specification, the oxidation-reduction potential is adjusted by adding hydrazine or analogous compound in order to facilitate the removal of elemental chlorine from the crude hydrogen chloride aqueous solution. In EP '268, hydrazine is also added for the same purpose. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of the hydrazine, or any analogous compound, to be added to the crude acid of EP '268 to efficiently remove elemental chlorine from the crude acid. The oxidation-reduction potential of the crude acid with such optimum amount of added hydrazine in EP '268 would be similar to the claimed ranges.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (703) 308-2536. The examiner is currently on Part time schedule.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
June 22, 2003